

09/842,313

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Please **SUBSTITUTE** the following amended paragraph/section for the pending paragraph (a marked up copy of the prior pending paragraph with all changes shown is supplied in the appendix):

Please replace the pending paragraph, which begins on page 3, the 3rd full paragraph with:

In a second embodiment, the invention is directed towards the use of an integrated circuit card (also known as a smart card or chip card). One aspect of the second embodiment pertains to a method for authenticating the chip card being used by a customer. This method involves verifying that said cardholder client device includes a chip card reader and then prompting said cardholder to enter said chip card into the chip card reader. After the chip card reader receives the chip card, the chip card generates a cryptogram which is then sent to the access control server. The access control server then independently generates a second cryptogram based upon information in the chip card and compares the chip card cryptogram to the second cryptogram. If the two independently generated cryptograms match, then the authenticity of the card is verified.

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Please replace the pending paragraph, which begins on page 9, the 1<sup>st</sup> continuing paragraph with:

The issuer domain 102 includes an enrollment site 108, an issuer cardholder system 110, the cardholder client device 122, an enrollment server 112, an access control server 114, an issuer or third party identity authentication component 116, and an account holder file 118. Optionally, the issuer domain 102 can include an issuer file of approved cardholders 120. The enrollment server 112 is a computer that manages cardholder enrollment into the PAS service through presenting a series of questions via a web interface to be answered by the cardholder and verified by the issuer. As shown in FIG. 1, the card issuer operates the enrollment server 112. However, a service organization, such as Visa, may operate the enrollment server 112 on behalf of the issuer. The issuer may use a web-enabled, interactive "identity authentication service" provided by a third party during the enrollment process to help validate a cardholder's identity. The enrollment server 112 is connected via the Internet to the Internet Payment Gateway Service 124, which is in turn, connected to a telecommunications network 126, for example, VisaNet.

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server 128, the validation server 136, and the acquirer payment processor 182. The acquirer payment processor 182 is connected to the payment network 126, which is in turn connected to the issuer 180.

Please replace the pending paragraph, which begins on page 27, the 3rd full paragraph with:

Now, FIG. 12 is presented to illustrate payment process flows that are superimposed upon a chip card system architecture according to one embodiment of the present invention. The chip card authentication architecture 1500 involves the cardholder client device 1510, the issuer's ACS 1520, the cardholder 1530, the chip card 1540, and the requesting party 1550. The requesting party in the PAS environment is typically the merchant. The cardholder client device 1510 includes a display device 1512, terminal software 1514, PIN pad or key entry device 1516, and the card reader 1518. The card reader 1518 is the electromechanical device into which a chip card is inserted for use with a terminal application, functionally equivalent to a Card Acceptance Device or InterFace Device (IFD in a physical point of sale environment).

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16 Please replace the pending paragraph, which begins on page 30, the 3rd paragraph, line with:

This section briefly describes the phases of the VSDC Authentication processing in the order in which they occur as illustrated in FIG. 12A: